

## ABSTRACT

A programmatic time-gap defect correction apparatus and method corrects errors which may go undetected by a computer system. Buffer underruns or overruns, which may incur errors in data transfers, yet remain undetected and uncorrected in a computer system, are corrected by an error avoidance module in accordance with the invention. Bytes transferred to and from buffers, used by an I/O controllers to temporarily store data while being transferred between synchronous and asynchronous devices, are counted and an error condition is forced based on the count. If the count exceeds the capacity of the buffer, an error condition is forced, thereby reducing chances that errors are incurred into the data transfer.

Docket: 2456.2.9

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